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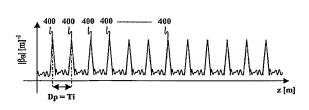
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## (54) Title: METHOD FOR DETERMINING SPIN CHARACTERISTIC PARAMETERS IN SPUN OPTICAL FIBERS



(57) Abstract: A method (600) of determining characteristic spin parameters (T,Ti) of a spun optical fiber (105), comprising: performing (610,615) optical time-domain reflectometry measurements on the fiber, so as to obtain a State Of Polarization (SOP) spatial function from a backscattered electromagnetic field, the SOP spatial function being defined by a plurality of components; and processing the SOP spatial function (625-650). The processing comprises: calculating a further spatial function related to the spatial first derivative of at least one of said components of the

SOP spatial function; identifying a spatial periodicity of said further spatial function; and determining said characteristic spin parameters as a function of said spatial periodicity (630-650).

